U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Southside Chattanooga Lead - Removal Polrep

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**Region IV**

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| **Subject:** | **POLREP #21**<br>**Residential Removal Actions Continue**<br>**Southside Chattanooga Lead**<br><br>**Chattanooga, TN**<br>**Latitude: 35.0333793 Longitude: -85.3057271** |
| **To:** | Jim Mc Guire, ERRB Reg 4 |
| **From:** | Perry Gaughan, On Scene Coordinator |
| **Date:** | 8/10/2013 |
| **Reporting Period:** | July 22 through Aug 3rd, 2013 |

## 1. Introduction

### 1.1 Background

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| **Site Number:** | B4J4 | **Contract Number:** | |
| **D.O. Number:** | | **Action Memo Date:** | 8/19/2012 |
| **Response Authority:** | CERCLA | **Response Type:** | Time-Critical |
| **Response Lead:** | EPA | **Incident Category:** | Removal Action |
| **NPL Status:** | Non NPL | **Operable Unit:** | |
| **Mobilization Date:** | 9/17/2012 | **Start Date:** | 9/24/2012 |
| **Demob Date:** | | **Completion Date:** | |
| **CERCLIS ID:** | | **RCRIS ID:** | |
| **ERNS No.:** | | **State Notification:** | |
| **FPN#:** | | **Reimbursable Account #:** | |

#### 1.1.1 Incident Category

Lead contaminated soil on 52 properties being removed as a time critical removal under CERCLA.

#### 1.1.2 Site Description

The Tennessee Department of Environmental Conservation (TDEC) requested the EPA Region 4 Emergency Response and Removal Branch's (ERRB's) assistance after discovering that the lawns of one residence and potentially several more were contaminated with lead along Read Avenue near downtown Chattanooga. Initially, one resident along Read Avenue presented to the emergency room with severe fatigue and abdominal pain. Emergency room blood work indicated lead levels approaching 20 micrograms per deciliter (ug/dl) which alerted TDEC to conduct follow up assessments. TDEC requested assistance from ERRB to characterize the soil around the home and an initial assessment was conducted with SESD (Science and Ecosystem Support Division) Athens in which three homes were assessed as well as a public park and playground area at 1700 Mitchell Avenue. Ten samples were collected and two samples showed elevated lead levels exceeding 400 ppm.

#### 1.1.2.1 Location

The Southside Chattanooga Lead Site is located along Read, Mitchell and Carr Avenues south of Main Street in Chattanooga, Hamilton County, Tennessee (Latitude: 35.0456, Longitude: -85.3097). The area is a blend of young, middle income couples who are renovating older constructed homes and low to middle income retired couples who have resided in the area for 20 plus years. The vast majority of homes were built in the early 1900's.

The Southside Chattanooga area is immediately adjacent to downtown Chattanooga and was prone to flooding during the early 1900's and prior to the development of damming and flood control measures by the Tennessee Valley Authority (TVA). Several of the homes along Read and Mitchell Avenues appear to have been built on 4-5 feet of clay fill.

#### 1.1.2.2 Description of Threat

### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In response to a request from TDEC, the EPA Region 4 ERRB with assistance from SESD Athens, conducted two follow up assessments of the Read and Mitchell Avenue area in January and April 2012. Of the 81 homes (162 front and back yards) assessed near downtown Chattanooga, 68 lawns (42 %) have lead levels exceeding 400 ppm. Lead levels range from 400 – 4000 ppm. The 4000 ppm sample was collected from a lawn along the 1600 block of Read Ave and the sample contained very dark fine material, most likely a high concentration of bag-house dust.

In addition, the Battle Academy Elementary School which neighbors the site was sampled in mid June 2012. A 20' by 20' grid was laid over the school property and 140 grids were screened using X-ray fluorescence spectroscopy (XRF). No significant lead contamination was found and all lead levels were below 55 ppm.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

**July 22nd through July 26th**

On Monday, July 22nd, the ERRs crew began removal efforts at the shared yard between 1722 and 1724 Mitchell, working between the concrete parking strips at this location per request of the owner. Once the contaminated soil in this location was removed, the crew began backfill operations. Effort was made to compact clay well along the concrete parking strips. Once clay was backfilled, a layer of topsoil was placed, compacted and the bare areas were covered with straw. The crew also removed contaminated soil from the small front yard of 1724 Mitchell. This area was also backfilled, covered with topsoil, compacted, and covered with straw this day.

On Tuesday. July 23rd, the crew began removal at the north side strip of yard at 1722 Mitchell. This area was hand dug, as the heavy equipment was too large for this narrow location. The crew made way to the 1722 Mitchell back yard, working around the large shed. Once contaminated soil was removed down to one foot, the dig area was backfilled with clay, covered with a topsoil layer, compacted and covered with straw. The crew also removed contaminated soil from a small area at the north side of the structure, in front of the paved driveway. The area was backfilled, compacted and covered with straw.

On Wednesday, July 24th, work began at the shared yard between 1718 and 1720 Mitchell. One section of fence was removed to allow for equipment to obtain contaminated soil. A ditch witch excavator and loader were utilized in this location. The owner of 1720 Mitchell had a large rock garden in the back yard. The crew moved the rock from the work area to remove contaminated soil. Once the contaminated soil was removed, the crew began backfilling the area with clay, however rainfall stopped work at approximately 1530 hrs.

On Thursday, July 25th, the crew placed sod at the back yard of 1730 Mitchell, the north side yard of 1726 Mitchell, and front and back yards of 1724 Mitchell. Once sod was placed, the crew continued backfill efforts in the back yard of 1720 Mitchell. Once clay backfill was placed, the crew reconstructed the rock garden area, placed a layer of topsoil, compacted the soil and placed straw. The crew also established a gravel parking pad at the 1720 Mitchell back yard where the owner typically parked his car.

**July 29th through August 3rd 2013**

On Monday, July 29th, the ERRs crew began removal in the back yard of 1718 Mitchell. The area closest to the structure was excavated down to one foot, however upon working further back toward (east) the alley way where there were two large trees, the excavator operator came up in grade and did a soil scrape under the trees to avoid damaging the root system. Once removal was completed, the crew backfilled the area with clay, placed top soil and the area was compacted.

On Tuesday, July 30th, the crew began removal at 1716 Mitchell south side yard and worked toward the front yard, left side yard and back yard. While working at the right side yard, a small leak in the water line (PVC to copper) was observed. Also an active broken clean out line was observed. The site plumber was notified and will be on site 8/1/13 to conduct repair. The crew utilized the already broken driveway (partially poured concrete, partially old parking strips) to remove material and load out at the back yard. This task further broke the driveway, therefore the owner requested the driveway be completely removed and gravel be placed. The crew rented a saw to clean cut the driveway from the roadside sidewalk, however there was no spigot nearby, therefore the crew obtained water from the neighboring property and slowly poured water from a 5-gallon bucket over the cut area. While this aided in the amount of particulate, when the bucket would get low on water and the trickle was slowed, more particulate was created, so the crew had to make multiple trips to the neighboring spigot for water, stopping work on several occasions.

Heavy rain cancelled removal operations on Wednesday July 31st. On Thursday, August 1st, the crew placed clay and top soil in the front yard, and placed a gravel driveway over the clay at the front left side where the former driveway was located. The soil was tamped and straw was placed over bare areas. The crew also placed sod at 1722, 1724, and 1726 Mitchell. The site plumber repaired the broken clean out line and PVC to copper water line.

On Friday, August 2nd, the crew completed removal in the back yard of 1716 Mitchell. Once contaminated soil was removed, the crew placed clay backfill, covered the clay with top soil, compacted the soil then placed straw. The crew also planted flowers that were removed during operations. START contractors continue to assist with technical support, daily operations, post-excavation confirmation sampling using X-ray fluorescence spectroscopy (Xrf) and air sampling during excavation and staging of contaminated soils.

The OSC continues to coordinate clean up efforts and assessments with Tenn Dept of Environmental Conservation (TDEC) and Tenn Dept of Health as well as Hamilton County health officials. TDEC and the OSC plan to update Chattanooga City Council during February 2013. A specific date has not been set by City Council.

The OSC, Tenn Dept of Health and Tenn Dept of Environmental Conservation (TDEC) are currently preparing an assessment strategy for Chattanooga City Council addressing future lead assessments in the downtown area.

### 2.1.2 Response Actions to Date

### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

### 2.1.4 Progress Metrics

| *Waste Stream* | *Medium* | *Quantity* | *Manifest #* | *Treatment* | *Disposal* |
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### 2.2 Planning Section

No information available at this time.

### 2.3 Logistics Section

No information available at this time.

### 2.4 Finance Section

**Estimated Costs ***

| | Budgeted | Total To Date | Remaining | % Remaining |
|---|---|---|---|---|
| **Extramural Costs** | | | | |
| ERRS - Cleanup Contractor | $2,400,000.00 | $2,200,000.00 | $200,000.00 | 8.33% |
| TAT/START | $140,000.00 | $110,000.00 | $30,000.00 | 21.43% |
| **Intramural Costs** | | | | |
| | | | | |
| **Total Site Costs** | $2,540,000.00 | $2,310,000.00 | $230,000.00 | 9.06% |

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

### 2.5 Other Command Staff

No information available at this time.

## 3. Participating Entities

### 3.1 Unified Command

### 3.2 Cooperating Agencies

The OSC continues to coordinate clean up efforts and assessments with Tenn Dept of Environmental Conservation (TDEC) and Tenn Dept of Health as well as Hamilton County health officials. TDEC and the OSC plan to update Chattanooga City Council during February 2013. A specific date has not been set by City Council.

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## 4. Personnel On Site

No information available at this time.

## 5. Definition of Terms

No information available at this time.

**6. Additional sources of information**

No information available at this time.

**7. Situational Reference Materials**

No information available at this time.